

STATUS OF THE CLAIMS

Claims 1-38 (canceled).

39. (previously presented) A semiconductor device comprising:

a substrate; and

at least one electro-mechanically polished metal layer formed over said substrate, wherein the electro-mechanically polished metal layer's surface has been electro-mechanically polished against a second surface while submersed in an electrolytic bath.

40. (original) The semiconductor device of claim 39, wherein said metal layer comprises at least one metal selected from the group consisting of noble metals, noble metal alloys, refractory metals, and refractory metal alloys.

41. (original) The semiconductor device of claim 39, wherein said device comprises a capacitor with at least one electro-mechanical polished metal layer.

42. (original) The semiconductor device of claim 41, wherein said electro-mechanical polished metal layer is a bottom electrode of said capacitor.

43. (previously presented) A semiconductor capacitor comprising:

a bottom electrode formed over a substrate;

an insulating layer formed over said bottom electrode; and

a top electrode formed over said insulating layer, wherein at least one electrode surface comprises an electro-mechanically polished surface that has been electro-mechanically polished against a second surface while submersed in an

electrolytic bath.

44. (original) The capacitor of claim 43, wherein said capacitor is a MIM capacitor.

45. (original) The capacitor of claim 43, wherein at least one electrode comprises a metal selected from the group consisting of noble metals, noble metal alloys, refractory metals, and refractory metal alloys.

46. (original) The capacitor of claim 43, wherein said at least one electrode surface is a surface of said bottom electrode.

47. (previously presented) The capacitor of claim 43, wherein the bottom electrode consists of platinum.

48. (previously presented) A processor system comprising:

a processor; and

a memory device electrically coupled to said processor, said memory device comprising a substrate; and

a capacitor formed over said substrate, said capacitor comprising at least one electro-mechanically polished layer that has been electro-mechanically polished against a second surface while submersed in an electrolytic bath.

49. (previously presented) A semiconductor device comprising:

a substrate; and

at least one electro-mechanically polished metal layer consisting of a noble

metal formed over said substrate that has been electro-mechanically polished against a second surface while submersed in an electrolytic bath.

50. (previously presented) A semiconductor capacitor comprising:

a bottom electrode formed over a substrate;

an insulating layer formed over said bottom electrode; and

a top electrode formed over said insulating layer, wherein at least one electrode surface comprises an electro-mechanically polished metal surface consisting of a noble metal that has been electro-mechanically polished against a second surface while submersed in an electrolytic bath.

51. (previously presented) A processor system comprising:

a processor; and

a memory device electrically coupled to said processor, said memory device comprising a substrate; and

a capacitor formed over said substrate, said capacitor comprising at least one electro-mechanically polished metal layer consisting of a noble metal provided over said substrate that has been electro-mechanically polished against a second surface while submersed in an electrolytic bath.